

WHAT IS CLAIMED IS:

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1. A medical article comprising a liquid-impervious, moisture-vapor permeable polymeric film having directly bonded thereto an absorbent, substantially nonswellable foam.
2. The medical article of claim 1 which has a dry moisture vapor transmission rate of less than about 2000 g/m²/24 hours at 38°C and 20% relative humidity.
3. The medical article of claim 2 which has a wet moisture vapor transmission rate of at least about 3000 g/m²/24 hours at 38°C and 20% relative humidity.
4. The medical article of claim 3 which has a wet moisture vapor transmission rate of at least about 5000 g/m²/24 hours at 38°C and 20% relative humidity.
5. The medical article of claim 2 which has a dry moisture vapor transmission rate of less than about 1800 g/m²/24 hours at 38°C and 20% relative humidity.
6. The medical article of claim 5 which has a dry moisture vapor transmission rate of less than about 1500 g/m²/24 hours at 38°C and 20% relative humidity.
7. The medical article of claim 1 wherein the foam absorbs greater than 250% by weight aqueous saline solution when immersed in phosphate buffered saline containing 0.9 wt-% NaCl at 37°C for 30 minutes.
8. The medical article of claim 1 wherein the liquid-impervious, moisture-vapor permeable polymeric film has a dry moisture vapor transmission rate of at least about 300 g/m²/24 hours at 38°C and 20% relative humidity.

9. The medical article of claim 8 wherein the liquid-impervious, moisture-vapor permeable polymeric film has a wet moisture vapor transmission rate of at least about 3000 g/m²/24 hours at 38°C and 20% relative humidity.
- 5 10. The medical article of claim 1 wherein the liquid-impervious, moisture-vapor permeable polymeric film comprises one or more layers.
11. The medical article of claim 1 wherein the liquid-impervious, moisture-vapor permeable polymeric film is a thermoplastic polyurethane.
- 10 12. The medical article of claim 1 wherein the liquid-impervious, moisture-vapor permeable polymeric film has a thickness of about 10 microns to about 250 microns.
- 15 13. The medical article of claim 1 wherein the substantially nonswellable foam increases in volume by no greater than about 10% following a 30-minute soaking in phosphate buffered saline at 37°C.
14. The medical article of claim 13 wherein the substantially nonswellable foam increases in volume by no greater than about 5% following a 30-minute soaking in phosphate buffered saline at 37°C.
- 20 15. The medical article of claim 1 wherein the substantially nonswellable foam is an open cell foam.
- 25 16. The medical article of claim 15 wherein the substantially nonswellable foam comprises a polyurethane.
17. The medical article of claim 1 wherein the liquid-impervious, moisture-vapor permeable polymeric film includes graphics printed thereon.
- 30 18. The medical article of claim 1 wherein the liquid-impervious, moisture-vapor permeable polymeric film extends beyond a periphery of the foam.

19. The medical article of claim 18 wherein the liquid-impervious, moisture-vapor permeable polymeric film includes an adhesive disposed on the surface to which the foam is bonded around the periphery of the foam.

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20. The medical article of claim 1 wherein a nonwoven, woven, or knit web is bonded to the moisture-vapor polymeric film on a surface opposite the surface to which the foam is bonded.

10 21. The medical article of claim 20 wherein the moisture-vapor polymeric film is bonded to the nonwoven, woven, or knit web with a fibrous adhesive.

22. The medical article of claim 1 wherein the foam is cast directly on the film.

15 23. The medical article of claim 1 which is a wound dressing.

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20 24. A medical article comprising a liquid-impervious, moisture-vapor permeable polymeric film having directly bonded thereto an absorbent foam, wherein the article has a dry moisture vapor transmission rate of less than 2000 g/m²/24 hours and a wet moisture vapor transmission rate of at least about 3000 g/m²/24 hours, at 38°C and 20% relative humidity.

25 25. The medical article of claim 24 which has a wet moisture vapor transmission rate of at least about 5000 g/m²/24 hours at 38°C and 20% relative humidity.

26. The medical article of claim 24 which has a dry moisture vapor transmission rate of less than about 1800 g/m²/24 hours at 38°C and 20% relative humidity.

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27. The medical article of claim 24 wherein the foam absorbs greater than 250% by weight aqueous saline solution when immersed in buffered saline containing 0.9 wt-% NaCl at 37°C for 30 minutes.

28. The medical article of claim 24 wherein the liquid-impervious, moisture-
vapor permeable polymeric film comprises one or more layers.
- 5 29. The medical article of claim 24 wherein the substantially nonswellable foam
increases in volume by no greater than about 10% following a 30-minute
soaking in phosphate buffered saline at 37°C.
30. The medical article of claim 24 wherein the substantially nonswellable foam
10 is an open cell foam.
31. The medical article of claim 24 wherein the liquid-impervious, moisture-
vapor permeable polymeric film extends beyond a periphery of the foam.
- 15 32. The medical article of claim 31 wherein the liquid-impervious, moisture-
vapor permeable polymeric film includes an adhesive disposed on the
surface to which the foam is bonded around the periphery of the foam.
33. The medical article of claim 24 wherein a nonwoven, woven, or knit web is
20 bonded to the moisture-vapor, polymeric film on a surface opposite the
surface to which the foam is bonded.
34. The medical article of claim 24 wherein the foam is cast directly on the film.
- 25 35. The medical article of claim 24 which is a wound dressing.

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